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L'ABBE PROVANCHER.

The late Abbé Provancher, whose picture we take pleasure in presenting to our readers in this number, was born in 1820, at Becancour, Quebec. His principal entomological work is the "Faune Entomologique du Canada," in three volumes, embracing the Coleoptera, Orthoptera, Neuroptera, Hymenoptera and Hemiptera. This was begun in 1874 and completed in 1890, and the enormity of the work will be better understood when we learn of the disadvantages at which the author was placed in being separated from necessary libraries, collections and co-workers in the field of Entomology. Notwithstanding these adverse conditions he bravely struggled on, and to-day his work stands as a monument to his assiduity. To be sure he made mistakes—we all do that—and has been criticised, perhaps too harshly, when the conditions he was obliged to face are considered. He conducted the journal, "Le Naturaliste Canadien," the publication of which was suspended, through lack of support, a short while previous to his death, after twenty volumes had appeared dating from 1869 to 1890. His labors were by no means restricted to Entomology, as he published a treatise on the Flora of Canada, treatises on agriculture and travels, and his last work was entitled, "Les Mollusques de la Province de Quebec." He died in 1892, aged seventy-two years.

A NOTE ON THE INSECTS OF THE TORTUGAS.

By H. F. WICKHAM, Iowa City, Iowa.

The Tortugas Keys, or Dry Tortugas, as they are often called, are a cluster of low sandy islets lying fifty-four miles to the westward of Key West, and are practically on the southern limit of the domain of the United States. They rise from a bank of coral and coral sand about ten miles long northeast and southwest, and four or five miles in breadth. Barren in character, but little vegetation has obtained a foothold here excepting two or three species of bushes and such plants as have been set out by the few inhabitants who, in the capacity of government health officers or light-house employes, make these lonely little Keys their home. Some of the older trees were, however, planted by the garrison of Fort Jefferson during the time of the military usefulness of that now practically abandoned post.

But two of these islets are inhabited—Garden Key and Loggerhead Key; the former lies somewhat near the center of the group and is of some thirteen acres in extent most of which is enclosed by the walls of the fort, an immense and useless fortification once mounting scores of heavy guns, now rapidly going to decay and used only as a quarantine station against yellow fever posts. It was on account of quarantine regulations that the writer, in common with the other members of the "Bahama Expedition" from the State University of Iowa, just from Cuba, made an enforced visit to this collecting ground which would scarcely be chosen as a productive field by any entomologist in spite of the richness of the marine life in the vicinity.

What could one expect to find on these little sandy Keys lying such a distance from any large land area and dependent for their insect fauna upon the caprice of the wind, the drift of the Gulf stream or the accidental importations of man? Not much, certainly; and not much was found in the few hours that could be devoted to search for entomological booty on the narrow beaches and scant flora. The few captures are recorded, however, as a contribution to the knowledge of the fauna of a spot that has hitherto cut no figure in entomological literature.

Beginning on the 7th of June a few hours were spent each day in collecting, as opportunity offered for going ashore, until the 13th, and the scant list of beetles appended represents all that

could be accomplished by careful work along that line; the insects of other orders have not been fully identified, but were few in species and for the most part inconspicuous. A little Lycænid was the only butterfly seen, while the only bee was *Oxybelus emarginatus* Say. The ants were represented by *Camponotus tortuganus* Em., *Tetramorium cæspitum* Linn., *T. guineense* Fabr. and *Pheidole megacephala* Fabr. Among the Hemiptera we have *Murgantia histrionica* Hahn., which was very common in one or two spots, *Chlorocoris loxopa* Uhler, *Gonianotus marginipunctatus* Wolff and *Pangæus bilineatus* Say. Only a few species of Orthoptera were found, none of which are yet identified. They are mostly immature individuals taken by beating, though one is an Acridiid of considerable size. The above identifications are the work of Messrs. Ashmead, Heidemann and Pergande; those of the beetles, which follow, are due to Dr. Horn, Mr. Schwarz and the writer, and the list includes all the species found, which, while few in number, represent twenty families. They are:

Selenophorus pedicularius Dejean.

Homalota sp.

Cafius bistriatus Er.—Along the beach under sea-weed.

Cafius sericeus Holme (?).—With the preceding, less common.

Cafius (?) sp.—One specimen.

Bledius basalis Lec.

Briaraxis depressa Brend.—Under rubbish on the beach. So far as known this is confined to these Keys.

Actinopteryx fucicola Allib.—Under sea-weed on beach.

Psyllobora nana Muls.—Not uncommon on bushes; found also at Key West and in the West Indies.

Scymnus bivulnerus Horn.—With the preceding.

Symbiotes (?) sp.—Found on the vessel while anchored here. Mr. Schwarz writes that it agrees well with descriptions and figures of *S. pygmæus*.

Corticaria sp. indet.—Beaten from bushes, common throughout South Florida.

Saprinus ferrugineus Mars.—Very common under the carapaces of two turtles which we laid out to dry.

Pseudebæus oblitus Lec.—Common on bushes on Loggerhead Key.

Necrobia rufipes Fabr.

Petalium bistriatum Say.—Beaten from bushes with the next.

Catorama punctulata Lec.—Not common.

Ligyrus gibbosus DeGeer.—A dead specimen was picked up on Loggerhead Key, another on Rush Key.

Elaphidion truncatum Hald.—A specimen agrees with Haldeman's description except that the frontal line is quite distinct.

Blapstinus opacus Lec.—Common under boards and rubbish.

Phaleria longula Lec.—Very common, found by hundreds along the beach under sea-weed or dead animals.

Phaleria picipes Say.—With the preceding, but much less common.

Hymenorus convexus Casey.—Common, especially on Castor Bean.

Oxacis sp. n.—A few taken from heads of sea-oats.

Xylophilus ventricosus Lec.

Artipus floridanus Horn.—Extremely common on bushes, also occurs over all southern Florida and in the Bahamas.

Cryptorhynchus sp —On the beach.

Dryotribus mimeticus Horn.—Under stones or boards on the beach.

Macrancylus linearis Lec.—Under logs on beach, not rare.

A glance at the above list will show that these little islands have evidently derived their fauna from the same source as the coast of the mainland of southern Florida and the outlying Keys along the shore. Several of the species were taken also in the Bahamas and further attention to this matter will be given when the entire collections made by the writer in the British West Indies are worked up.

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NAMES,—SCIENTIFIC *vs.* COMMON.

By Frederic Ormonde.

The question as to whether insects shall be determined by their scientific or their common names, has been a field for much discussion among entomologists and the entomological journals. Yet, the advocates of the system of common names do not appear to have gained much in return for their efforts. And why should they achieve favorable results when their only argument in favor of this scheme rests in the assertion that descriptions would be more lucid and acceptable to the general reader

if the common or popular appellation were given in place of the more technical or scientific term.

Here I would ask: are the masses to be educated in entomology as a science, or is entomology to be given to the public as a subject, whose chief characteristics are to be recognized in mythical absurdities and superstitious vagaries?

A species may have a popular name in one section and in another be known by one different from the first, and in yet another by one entirely distinct from either, and so on until we find one little insect laden with a very unique assortment. Were an entomologist to attempt to acquaint himself with all of them, with the intention of using them as a preface to his descriptions, he would undertake a task colossal in its magnitude, and one that would require vast folios in print.

Now, the simplest way out of such a confusing maze is to adhere to the scientific basis of nomenclature. Let each species be known by a scientific title. One with a plain and connected meaning that will stand forever, and everywhere, unless it be abolished in its own science, in its advancement. We find in several instances that a species is known by more than one scientific term. But as we advance those mistakes are very quickly remedied, and are less apt to occur in the future. Providing we should, when we are of the opinion—finding that it does not correspond to such description as we have at hand—that we have made a new discovery, weigh well the matter, investigate thoroughly, instead of hastening to apprise the world that we have unearthed something new, and finding later that it was a mistake, that we had only argumented that burthen of confusion which we strive so hard to lighten.

It is very important that we should pause, be sure we are right and then go ahead. To avoid possible confusion, let derivations be in strict accord with grammatical analogy. Classify in a learned language, for popular idioms are in a state of constant fluctuation. Classify according to a scientific basis, the practise of naming from persons who first describe should be avoided wholly and entirely.

Such a nomenclature, ought, I think, be discarded, as unbecoming the gravity of men, who should treat their science as a science and not descend to childish denominations. If a man's works entitled him to it, his name will be handed down to posterity, an object of veneration and respect, without being hung to an insect. If not, "*aliena optimum frui insania*".

ARIZONA ANTS.

By Dr. H. W. FENNER, Tucson, Ariz.

No. 1. *Pogonomyrmex rugosus* Em. (var.).—Large and numerous nests, one large opening two to four inches in diameter on surface level, found none elevated; a disk was cleared around each nest from two to twelve feet in diameter; ants out very early in the morning and all in by sun down; do not close nests, but have a great many sentries just within the opening; ants busy carrying seeds.

No. 2. *Pogonomyrmex californica* Buckley.—Quite numerous through town; have one opening on surface level with excavated dirt all taken to one side. When disturbed all disappear within nest; out at work early in morning, all in nest at noon and out again in afternoon; close nest at night; are always busily engaged carrying seeds, the husks of which are afterwards thrown out. These ants, while in active motion, carry abdomen erect, at right angle (nearly) to the body.

No. 3.—Have from one to three openings to nest, all observed were on surface level and surrounded by irregular rings of excavated dirt; one to three columns of ants following certain roads working from each nest; observed one column for three weeks which, for the whole time, followed the same road to a fig tree.

No. 4. *Pheidole megacephala* Rog. (var.)

No. 5. *Pogonomyrmex subnitidus* Em. (var.).—Very small colonies, but quite numerous, easily alarmed; had to dig up nest in order to catch any. Have small mounds on one side of nest. Habits not observed.

No. 6. *Aphænogaster pergandei* Mayr.—Large colonies, single opening on surface level, excavated soil or gravel, irregularly around nest. Habits not noted.

No. 7. *Aphænogaster sonoræ* Perg.—Large colonies, nest very slightly elevated with two or three openings, from one to three inches in diameter; very irregular in outline; observed some colonies where there seemed to be no elevation to nest. Ants occupied in gathering seeds and pieces of grass.

Nos. 8 and 9. *Pheidole* near *fabricatus* Em.—Evidently major and minor; very small nests and colonies; worked in columns. The major very slow and sluggish; minor active and belligerent.

No. 11. *Pogonomyrmex californica* Buckley.—Small colonies

and nests; carries abdomen erect, same as No. 2, and, except in size, nest appears about same as No. 2. Habits not observed.

No. 12. *Cremastogaster* sp.—Nest raised about five inches in diameter, around root of small bush, very easily alarmed and hard to catch. Habits not observed.

No. 13. *Aphænogaster sonoræ* Perg.—The large ants in box were found always single, and were picked up in various places, and at different times; all other ants seemed to be very anxious to capture them from the largest to the smallest; one of the large ants had small ones attached to her legs, and the large ones also pulling her along (all of which I have left in the box).

No. 14.—Small crater nest, very much resembles No. 1, and were in same vicinity, only I observed them close up for the night at 5 P. M.

No. 15. *Aphænogaster sonoræ* Perg.—Very large colonies, nests occasionally slightly elevated, but some appear to be even depressed, from one to four very large openings, three or four inches in diameter. Ants very active and belligerent. Habits not observed, do not close up at night.

No. 16 *Atta versicolor* Perg. var.—Crater nests in sandy places; nest very regular and beautifully made as to external appearance, often four or five close together. Habits not observed.

No. 17. *Pheidole megacephala* Rag. var.—Large colony, nest under a board, travel in columns when a supply of food is found; after a rain many were busy trying to pull winged ones to nest.

Nos. 18, 19, 20. *Pheidole* sp., probably same as No. 9.—Collected after a rain; unable to place them as to nest, etc.

No. 21. *Atta versicolor* Perg. var.—Large colonies, opening on surface level; at 5 A. M. observed two columns of ants going to two small bushes, cutting off the leaves and carrying same to nest; outside of nest was quite a quantity of old leaves of same variety; at 8 A. M. nest was closed, and all had ceased work and were in nest; at 4 P. M. same. Next morning the two bushes were nearly cleaned from all leaves examined and found them all covered with some sweetish, sticky substance (a few of leaves enclosed in box). In order to catch a few specimens had to dig in a portion of the nest, *when I found that at least one-third of the ants had no abdomens, both of the large and small ones. Those without abdomens appeared just as active as the others*, and immediately commenced work with the others to repair nest. Did not

have time or tools to dig deeply in nest for further observation, but when at work, early in the morning, all of those outside had abdomens.

No. 22.—Unable to find nest; they were quite numerous on ground and quite active.

No. 23. *Solenopsis geminata* Fab.—Very small, slightly elevated nests; ants traveling in columns.

No. 24. *Myrmica* sp.—Could not find nest.

No. 25. *Myrmecocystus semirufus* Em.—Nest hard to find, only observed two, which were simply round holes in ground with no evidences of excavations on outside; one hole was about one-half inch in diameter and the other three-fourths inches. The ants were extremely active, and, not being belligerent, were extremely hard to capture. Habits not noted.

No. 27. *Cremastogaster brevispinose* Mayr. var.—Large colonies; one nest observed under root of cottonwood tree; immense numbers of ants traveling in columns in many directions, but sluggish and slow in movements.

No. 28. *Myrmecocystus mexicanus* Slave (var.)—Small, raised nests; ants very active. Habits not observed.

No. 29. *Pogonomyrmex californica* Buckley.—Habits and nests exactly like No. 2, and appear to me to be the same, except, possibly, a lighter color, and these were very willing to fight, and No. 2 would not.

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TYPES IN THE NEUMOEGEN COLLECTION.—I.

WITH A FEW NOTES THEREON.

By Dr. Rodrigues Ottolengui.

The death of Mr. Berthold Neumoegen having ended his life work on his great collection, and the final disposition of it being yet in doubt, I have conceived that it might be of interest to entomologists, to prepare the following list of the "type specimens" contained in his cabinets. Where a sexual sign, or signs, appear after a name, it means that such specimens carry the "type" label. Signs in parenthesis ( ) indicate that such additional representatives of the species are in the collection, and the absence of such signs means that there are no specimens except the type, or types.

I have also appended notes which seem interesting, a few of

which depend upon manuscript left by Mr. Neumoegen. The types reported here are certainly present, and labeled "type," as I have personally seen them. It is possible, however, in looking through so many cases filled with insects, that I have overlooked a few, though this is not likely. As a tribute to conscientious collecting, I have appended the names Morrison or Doll, where either of these two fine hunters have taken new species.

NYMPHALIDÆ.

Danais archippus var. *fumosus* ♀ Hulst. Long Island.

This was presented to Mr. Neumoegen by Dr. Hulst, and Mr. Neumoegen considered it merely a specimen stained by cyanide. But I have three specimens sent to me from Denver, Col., which were not killed with cyanide, having been captured by an amateur.

Argynnis liliana ab. *baronii* ♂ Edw. California.
Argynnis atossa ♀ Edw. Southern California.
Melitæa nympha ♂ (♂♀♀) Edw. Arizona, Morrison.
Melitæa perse ♂ (♂♀♀) Edw. Arizona, Morrison.
Melitæa perse var. *suffusa* ♂ Edw. Arizona, Morrison.
Melitæa chara ♂ (♂♀♀) Edw. Arizona, Morrison.
Melitæa phæton ab. *phæthusa* ♂ Hulst. Long Island.
Limenitis weidermeyerii ab. *sine-fascia* ♀ Edw. Arizona, Doll.
Ancæa morrisonii ♂ Edw. Arizona, Morrison.

LYCÆNIDÆ.

Chrysophanus hypophlæas var. *fulliolus* ♂ Hulst. Long Island.

The red of the primaries is replaced by yellowish. I should consider this an aberration rather than a variety.

PAPILIONIDÆ.

Calopsila satira var. *floridensis* ♂♀ Neum. Florida.
Calopsila argante var. *maxima* ♂♀ Neum. Florida.
Parnassius smintheus var. *nanus* ♂♀ Neum. British Columbia.
Papilio rutulus var. *arizonensis* ♂♀ Edw. Arizona, Doll.

Mr. Doll, near Prescott, Ariz., found a number of *Papilio* larvæ feeding on ash. He tied a bag over the limb of the tree and returned five weeks later, when he collected the pupæ. They proved to be mainly *Papilio daunus*, but among the imagines were a few of this rich variety of *rutulus*.

HESPERIDÆ.

Copæodes myrtis ♂ (♂♀) Edw. Tucson, Ariz., Doll.
Pamphila lasus ♂ Edw. Arizona, Morrison.

Pamphila bellus ♂ Edw. Arizona, Morrison.
Pamphila lunus ♂♀ Edw. Arizona, Morrison.
Pamphila cestus ♂ Edw. Arizona, Morrison.
Amblyscirtes cassus ♂ (♀) Edw. Arizona, Doll.
Amblyscirtes nanno ♂ (♀) Edw. Arizona, Morrison.
Amblyscirtes cefia ♂ Skinner. Texas.

Recently presented by Dr. Skinner.

Nisoniades afranius ♂ (♀) Edw. Arizona, Morrison.

This "type" label is in handwriting of Mr. Edwards, yet in Smith's Check List the name is credited to Lintner.

Nisoniades tatius ♂ Edw. Arizona, Morrison.
Nisoniades clitus ♂ (♂♀♀) Edw. Arizona, Morrison.
Pholisora etis ♂ Edw. Arizona, Morrison.
Eudamus hippalus ♂ (♂♀♀) Edw. Arizona, Morrison.
Eudamus drusius ♂ Edw. Arizona, Morrison.
Eudamus outis ♂ (♀) Skinner. Texas.

This pair recently presented by Dr. Skinner.

Megathymus neumoegenii ♂♀♀ Edw. Arizona, Doll.

About ten miles from Prescott, Ariz., Mr. Doll noticed a rocky cliff rising sheer from the roadside, and high up on its side some butterflies dancing about. He climbed slowly up, about thirty feet, and captured a specimen in his net, only to find its wings utterly despoiled when he took it from his net upon descending. On the following day he revisited the spot, having arranged a heavy pad of cloth about the neck of a killing bottle, so that it would not be broken when suddenly pressed against the rock. Slowly he climbed up the sides of the cliff, and after two hours' hard work had "bottled" seven specimens of this beautiful species, which were sitting on the bare rocks, but oh, so shy!

SPHINGIDÆ.

Lepisesia circæ ♂ Hy. Edw. Georgia.
Dilophonota festa ♂ Hy. Edw. Texas.
Sphinx separatus ♂♀ (♂♀) Neum. New Mexico.
Sphinx elsa ♂♀ Strecker. Arizona, Doll.
Sphinx dolli ♂ Neum. Arizona, Doll.

SESIIDÆ.

*Larunda solituda** ♂ Hy. Edw. Texas.
Larunda palmi ♀ (♂♀) Neum. Arizona.
Alcathœ caudatum var. *walkeri* ♂ Neum. Long Island.

* Species thus marked also appear in the Edwards collection, American Mus. Nat. Hist., Central Park, New York, the *types* having been divided.—Ottolengui.

Trochilium minimum ♂ Neum. Colorado.
Trochilium californicum ♀ Neum. California.
Sciapteron cupressi ♀ (♂♀) Hy. Edw. Colorado.
Sciapteron seminole ♀ Neum. Florida.
Sciapteron castaneum ♀ Hy. Edw. Texas.
Sciapteron præcedens ♂ Hy. Edw. North Carolina.
Sciapteron scepsiformis ♂ (♂♀) Hy. Edw. Texas.
Sciapteron dolli ♂ Neum. New Jersey, Doll.

The type ♀ is in the Doll collection.

Albuna vitrina ♂ Neum. Fort Calgary, British Columbia.
Sannina exitiosa var. *luminosa* ♂ Neum. Long Island, Doll.

A type ♂ is in the Doll collection.

Sesia præstans ♂ Hy. Edw. Washington.
Sesia bollii ♂ Hy. Edw. Texas.
Sesia perplexa ♂ Hy. Edw. Texas.
**Sesia impropria* Hy. Edw. Washington.
**Sesia sexfasciata* ♀ (♂♀) Hy. Edw. Texas.
Sesia imitata ♂ (♂♀) Hy. Edw. New Jersey.
Sesia morula ♂ Hy. Edw. Texas.
**Sesia koebelei* ♂ Hy. Edw. Arizona.
**Sesia hemizonæ* ♀ Hy. Edw. Nevada.
**Sesia opalescens* ♂ (♂♂) Hy. Edw. Nevada.
**Sesia madariæ* ♂ Hy. Edw. California.
Sesia candescens ♂ Hy. Edw. California.
Sesia nicotianæ ♂ (♀) Hy. Edw. Texas.
Sesia tecta ♂ (♂♀) Hy. Edw. Arizona, Doll.
**Pyrrhotænia animosa* ♂♀ Hy. Edw. Arizona, Morrison.
Pyrrhotænia texana ♂ (♂♀) Hy. Edw. Texas.
Pyrrhotænia subærea ♂ Hy. Edw. Arizona, Morrison.
**Carmenta aureopurpurea* ♂ (♂♀) Hy. Edw. Texas.

THYRIDÆ.

Plathyris granulata ♀ Neum. Arizona.

AGARISTIDÆ.

Alypia hudsonica ♀ (♂♀) Hy. Edw.

A note left by Mr. Neumoegen says that this species is a synonym of *A. sacramenti* G. and R., and also of *A. langtoni*. Another note declares that *A. gracilenta* Graef is a synonym of *A. octomaculata*, whilst Dr. Charles McKnight has expressed the opinion to me that *A. matuta* Hy. Edw. is also identical with *octomaculata*. Another note by Mr. Neumoegen asks whether *A. maccullochii* is not the same as *A. lorquinii*, a query which I should answer affirmatively. Evidently this genus needs studious revision.

Alypia desparata ♂ Hy. Edw. Mexico.

This species is not in Smith's Check List, but Mr. Doll has specimens from Texas. From the shape of the wings I should say that it is not an *Alypia*.

Edwardsia brillians ♀ Neum. Texas.

This insect is an important one, standing as the type both of genus and species, and being, as far as I know, unique.

SYNTOMIDÆ.

Lycomorpha latercula ♂ (♂♂) Hy. Edw. Arizona, Morrison.
Lycomorpha constans var. *sancta* ♂♀ Neum. and Dyar.

This is a *Tripocris*.

PYROMORPHIDÆ.

Pyromorpha fusca ♂ (♂♀) Hy. Edw. Arizona, Morrison.
Pyromorpha rata ♂ (♂♀) Hy. Edw. Arizona, Morrison.

NYCTEOLIDÆ.

**Earias obliquata* ♂ Hy. Edw. Texas.

LITHOSIIDÆ.

Hyproprepia inculta ♂ (♂♂♀) Hy. Edw. Type from Arizona.
Hyproprepia miniata var. *subornata* ♂♀ Neum. and Dyar. Texas.

This insect was described under the above name in "Canadian Entomologist," vol. xxv, p. 124, and it is written *subornata* in Mr. Neumoegen's Check List, but it is labeled *inornata*, evidently an error, but worth noting, as it is on the type.

Bruceia pulverina ♂♀ Neum. Colorado.

These are types of the genus as well as of the species.

(To be continued.)

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THE STUDY OF THE FORMICIDÆ OF LAWRENCE, MASS.

By GEORGE B. KING.

All of the following species were found in a circle, the radius of which was five miles:

Camponotus pennsylvanicus DeGeer.—Living in old pine stumps and one colony was found at the roots of a living hard pine tree. Not a very common species.

Camponotus americanus Mayr.—Living under stones, a small number of an undetermined species of *Lasius* was found with them; there was also a large colony of *Termes flavipes*, and a

very large colony of *Solenopsis debilis* in the nest with them; this is not a very common ant here. I also find with them a mite *Gamasus* sp. L., parasitic upon this ant.

Camponotus pictus Forel.—Living in a decayed hard pine stump, a very large colony July 8th. They were winged specimens at this time, with cocoons and larvæ of various stages of development; this is quite a common species.

Camponotus castaneus, var. *americanus*.—Lives under stones. I have as yet only found one colony. This one I found April 28, 1894, the males and females having wings: they must have hibernated in this state through the Winter.

Camponotus sp. hybernating under the bark of dead pine trees, March 18, 1894.

Formica fuscata.—Living under stones; is quite a common species. I have found some very pretty mites with them, which are as yet undetermined; two different species of Coleoptera are found with them—*Blapstinus mœstus* and *Megilla maculata*. This last species was of a very much faded color, quite small, and had a very peculiar deformity of the right elytron, it being nearly a sixteenth of an inch shorter than the left one, also the center row of spots does not unite properly, being drawn out of shape in proportion to the shortness of the elytra. This same colony of ants had three *Termes flavipes* with them.

Formica obscuripes Forel var.—Living in mounds and under stones, and is not very common. I find two different species of mites upon this ant. A species of *Gamasus*, and the other a *Uropoda* sp. I have not been able as yet to locate where the *Gamasus* species attacked the ants, but the *Uropoda* species fasten itself invariably to the intermediate pair of legs at the base of the tarsal joint at the tibia.

Formica exsectoides Forel.—Living in mounds; not common.

Formica nitidiventris Em.—Living under stones, a very common species with one colony. I found living with them at one side of their nest *Prenolepis parvula*, males and females were winged, May 4, 1894. A *Gamasus* and *Uropoda* sp. of mites were on these ants.

Formica nitidiventris Em. var.—Lives under stones, and is quite common, and is parasited with *Uropoda* mites.

Formica subsericeus Say.—Living in mounds and under stones. *Uropoda* mite is on this ant quite commonly.

Formica pallida fulva, var. of *nitidiventris*. *Uropoda* and another undetermined mite are found on these ants; not very common.

Formica neogates Em.—Lives under stones, and is not common.

Formica integra Nyl.—Lives under stones, not common.

Formica sp.—Not a common species, and have upon them an undetermined mite.

Lasius niger.—Lives under stones, very common.

Lasius neoniger Em.—Lives under stones, very common ; in one of their nests I found a larva of *Galerita* sp. It was in a small hole by itself; the mite *Uropoda* sp. is found on this ant.

Lasius interjectus Neyr.—Lives under stones, very common. *Solenopsis debilis* lives at one side of the nest with them.

Lasius claviger Rog.—Lives under stones, very common. *Solenopsis debilis* lives at one side of the nest with them ; they had with them, May 24, 1894, two different species, of Aphids, a species of *Forda*, and a mealey bug of *Westwoodia*, in large numbers; this ant is also parasited with the *Gamasus* sp.

Lasius species undetermined, found under stones with *Camponotus americanus ;* very rare.

Lasius species not determined, found under stones occasionally, parasitized by *Gamasus* species.

Aphænogaster fulva Rog.—Lives under stones, not very common.

Tapinoma sessile. found living upon the upper outside edge of a robin's nest upon an apple tree, ten feet from the ground. The nest had three eggs in it at the time, and must have been an old nest, because there were nearly full-grown larvæ of the ants at this time, July 8, 1894. It is also found occasionally under stones.

Cremastogaster lineolata Say.—Lives under stones and very common; also found in stumps and under wood piles, and in bark of pine trees. I found one nest under a large cord wood stick in the woods; this colony had six live shells of *Zonites arboreus* Say. The ants were all collected around them apparently feeding from the slimy substance produced by the snails in the shells. I have also found some of the empty shells of *Vallonia pulchella* nule with this ant.

Prenolepis parvula Mayr.—Living under stones, a common species; a mite *Uropoda* was found on this ant.

Solenopsis debilis Mayr.—Living under stones most of the time with other ants, and at one side of their nest, and have their own roads and galleries. I have a small undetermined mite which is parasitic upon the larva of this ant. It fastens itself to the larva midway between the thorax and abdomen, and can only be determined there by the use of a lens, it is so near the color of the ant's larva.

Solenopsis debilis Mayr. var. is met with occasionally; has same habit of living at one side of nest with other species of ants.

In the determination of the above species of this group I am indebted to Mr. L. O. Howard, Mr. Theo. Pergande and Mr. C. L. Marlatt, of the U. S. Department of Agriculture, Washington, D. C., and to the Academy of Natural Sciences, of Philadelphia. In the study of the American Formicidæ, the American student has many difficulties to encounter, one of which is suitable literature giving the descriptions of the species already found, which seems to be very hard to obtain, most of the literature in this line being either French or German. In studying the literature of this group I have found but very few descriptions sufficiently explicit to enable one to determine the species described. I have now over two hundred and fifty cards in my catalogue of American and English literature, pertaining to Formicidæ. I have still more ants of this district that are not yet determined, and in all probability will find more as I continue the search. So far as I have consulted the literature on ants, I find but two writers that mention anything upon mites being found with ants. The first one is by Asa Fitch, his First and Second Report of the Noxious Insects of New York, page 153, and the other is that of H. C. McCook, on the honey ants, page 68, and a third, which I quote from memory, by Lubbock, where he speaks of the intelligence of ants. My intention is to make a catalogue, as complete as I can, of the literature pertaining to our American Formicidæ and their hosts.

Termes flavipes is a very plentiful species in the locality in which I have been studying. I should say that there are nearly a thousand *Termes* nests in stumps, railroad ties and under stones, but I have not as yet heard of any material damage done by them, but I am of the opinion that if their progress is not checked by the aid of some of our Economic Entomologists, serious results will surely follow, and that in the near future.

ENTOMOLOGICAL NEWS.

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PHILADELPHIA, PA., SEPTEMBER, 1895.

ALTHOUGH this number of the NEWS comes out in September, the work of preparing it comes during the heated term and while our entomological friends are having a good time with net and bottle we are laboring in their behalf. Now is the time of year when we look over the collecting boxes of our friends to see what interesting captures they have made, or are getting our own material into shape to arrange for exchanges during the cold weather, which we hope may add many a fine species to the cabinet. The sources of pleasure to the insect hunter are numberless and without season; every time of year has its pleasures and advantages. Now is also the time when the larvæ rearing period is running into the time when we look for cocoons and pupæ, even if there are a few more leaves on the ground than in the Spring. We hope you all have a large amount of good material to go over and put into good condition either for the cabinet or for exchanges, and also that all have profited from their open-air exercise taken in their favorite pursuit. The benefits of the study of entomology are many, and all do not appear on the surface. A day spent with Nature is always well spent and cannot fail to bring a return, even if it is only by renewed vigor, from the influence of fresh air and sunshine.

PICTURES for the album of the American Entomological Society have been received from W. H. Patton, F. Rauterberg, Henry Shimer, M.D., H. K. Burrison, John Hamilton, M.D., George R. Pilate, H. C. Fall, C. S. McKnight, M.D., J. M. Aldrich. We have room for more.

Notes and News.

ENTOMOLOGICAL GLEANINGS FROM ALL QUARTERS OF THE GLOBE.

[The Conductors of ENTOMOLOGICAL NEWS solicit, and will thankfully receive items of news, likely to interest its readers, from any source. The author's name will be given in each case for the information of cataloguers and bibliographers.]

To Contributors.—All contributions will be considered and passed upon at our earliest convenience, and as far as may be, will be published according to date of reception. ENTOMOLOGICAL NEWS has reached a circulation, both in numbers and circumference, as to make it necessary to put "copy" into the hands of the printer, for each number, three weeks before date of issue. This should be remembered in sending special or important matter for certain issue. Twenty-five "extras" without change in form will be given free when they are wanted, and this should be so stated on the MS. along with the number desired. The receipt of all papers will be acknowledged.—ED.

THE Associate Editor of the NEWS, Dr. P. P. Calvert, is studying abroad, and expects to be away about a year.

W. E. GLADSTONE recently remarked: "I think that the neglect of natural history, in all its multitude of branches, was the grossest defect of our old system of training for the young."

MELEOMA SIGNORETTI Fitch.—This curious lace-wing fly has not been recorded since Fitch described it; and no other species of the genus are known. Mrs. A. T. Slosson has lately sent me two specimens of it from Mt. Washington, N. H.—N. BANKS.

THE SECOND NUMBER of the "Transactions" of the American Entomological Society for 1895, contains the following papers: Studies in Coccinellidæ, by G. H. Horn, M.D.; Notes on Bees, with descriptions of new species, by Chas. Robertson; The Crabroninæ of Boreal America, by Wm. J. Fox. The third number, now in press, will contain the following papers: A Review of the Stratiomyia and Odontomyia of North America, by C. W. Johnson; The Species of Dineutes of America, north of Mexico, by C. H. Roberts; Descriptions of new Hymenoptera, by T. D. A. Cockerell; On the Larvæ of some Nematoid and other Saw-flies from the Northern Atlantic States, by Harrison G. Dyar; New Neuropteroid Insects, by Nathan Banks.

THE GLOW WORM'S LIGHT.—A contemporary mentions that photographs have before now been produced by the light from glow worms; in the examination of a particular insect, *Photinus coruscus*, which emits luminous rays, A. F. Miller has shown that the specimens examined did not seem to give out any blue or violet light, thus supporting Prof. S. P. Langley's conclusion that Nature produces the most economical kind of light, which may be supposed to mean that, as the insect has no need for photographic light, it does not produce it. It is, however, to be stated that photographic experiments have not been tried with this *Photinus*, so far as we are aware.—*Newspaper*.

THE BUTTERFLIES' FAD.

ELLA WHEELER WILCOX.

I happened one night in my travels
To stray into Butterfly Vale,
Where my wondering eyes beheld butterflies
With wings that were wide as a sail.
They lived in such houses of grandeur,
Their days were successions of joys,
And the very last fad these butterflies had
Was making collections of boys.

There were boys of all sizes and ages
Pinned up on their walls. When I said
'Twas a terrible sight to see boys in that plight,
I was answered: "*Oh, well, they are dead.*"
We catch them alive, but we kill them
With ether—a very nice way,
Just look at this fellow—his hair is so yellow,
And his eyes such a beautiful gray.

"Then there is a droll little darkey
As black as the clay at our feet,
He sets off that blonde that is pinned just beyond
In a way most artistic and neat.
And now let me show you the latest,—
A specimen really select,
A boy with a head that is carroty red
And a face that is funnily specked.

"We cannot decide where to place him,
Those spots bar him out of each class,
We think him a treasure to study at leisure,
And analize under a glass."
I seemed to grow cold as I listened
To the words that these butterflies spoke;
With fear overcome, I was speechless and dumb,
And then with a start—I awoke!

Our Dumb Animals.

ON May 19 I took a collecting trip to Eagle Rock, Orange Mountains, N. J., at which place there is a rail fence built along the road, on which, for the last two years, I have taken some different kinds of beetles, hiding in the joints, and in looking for these I took notice of some bore holes which I took for the work of *Scolytus* or Buprestidæ, but it gave me quite a surprise on this trip to find *Magdalis barbita* emerging from holes in a shellbark hickory post. The first one I thought nothing of, but after finding four more specimens in the same manner I made note of it, as it may

be something new to collectors. At the same time I would like to make a few remarks about finding *Dicælus purpuratus*, of which I took one this trip. I have at different times taken seven or eight, but never more than one specimen on a collecting trip. Last year I went collecting in the same locality for three successive trips and took one each time; all of these I found under very large stones, which I was hardly able to turn, and the rest I found under small bits of bark, hardly large enough to cover the beetle, and in every instance they were alone. I have taken *D. elongatus*, *D. dilatatus* and *D. teter*, and have always taken these in numbers. Now, how is it that I was unable to take more than one at a time of *D. purpuratus*? Would like to hear from some collector with more experience than I have.—EDWIN A. BISCHOFF, Newark, N. J.

ON a bright day near the end of July, 1893, a friend of mine, who is also an entomologist, came after me to go on a collecting trip with him to search for Lepidoptera larvæ in a cemetery near Brooklyn, N. Y. We succeeded well with larvæ of *Smerinthus* and *Eacles imperialis*. On our way home we passed a lilac and the gravel underneath showed droppings; we soon located the eaten leaves and found the peculiar larva of *Harrisimemna sex-guttata* shaking its head from side to side; the inch long hair on the head with the remains of the old skin on the end give them a strange appearance. This larva is not very common in this locality, and feeds on various plants, such as button-ball, inkberry and rose. I tried to locate another one in the vicinity when my friend called my attention to several defoliated branches on another lilac bush and a fine full-grown larva of *Citheronia regalis* had to wander into the satchel. This was our first knowledge of this species feeding on the lilac bush. On button bush they have been found by several collectors, but most have been taken from walnut, hickory, gum, persimmon, Oriental plane, etc. In 1893 I found, among fifty *Dolba hylæus*, that I had two larvæ which were black marked on their triangular heads. A scale fungus killed them along with half of my *hylæus*. In June, 1894, while collecting for larvæ and eggs of *hylæus* on *Ilax* (inkberry) I found four much paler eggs which I kept separated from the rest and they turned out four black heads and two of them emerged as imago of *Sphinx kalmiæ*, and two are yet chrysalids. I have never seen *Ilax* reported as a food-plant of this species. I took a hundred geometrid-like larvæ on sweet-fern. They were resting on the top branches and were hard to see in the bright sunshine; the larger were more like the stem in color, but much spotted lower against the stem; none were near the ground. They turned out to be the jet-black *Catocala antinympha*. I failed to preserve some larvæ, and learned, later from Dr. G. D. Hulst, that the larvæ had not yet been described. *Catocala* were quite common in July, 1894, but scarce in August. In one day I took forty-eight specimens with the cyanide bottle. Previous years I had difficulty in finding them, but now being acquainted with their habits and hiding places I have more success. They change their resting places several times a day, and in damp weather it is best to look for them near

the ground. Some trees seem to have a special attraction for them, such as dog-wood, or trees covered with vines or loose bark or moss. When I failed to find them in one locality I went to one or two others where some sort of attraction or other made them assemble here or there. As birds and bats (not to speak of squirrels) prey greatly on *Catocalæ*, as the numerous remains indicate, it may be variable winds direct their enemies to them and cause them to change their locality.—HERMAN MEESKE, Brooklyn, N. Y.

Identification of Insects (Imagos) for Subscribers.

Specimens will be named under the following conditions: 1st, The number of species to be **limited to twenty-five** for each sending; 2d, The sender to pay all expenses of transportation and the insects to become the property of the American Entomological Society; 3d, Each specimen must have a number attached so that the identification may be announced accordingly. Exotic species named only by special arrangement with the Editor, who should be consulted before specimens are sent. Send a 2 cent stamp with all insects for return of names. Before sending insects for identification, read page 41, Vol. III. Address all packages to ENTOMOLOGICAL NEWS, Academy Natural Sciences, Logan Square, Philadelphia, Pa.

Entomological Literature.

RAMBLES IN ALPINE VALLEYS. By J. W. Tutt, F. E. S., editor of the "Entomologist's Record and Journal of Variation," vice-president of the City of London Entomological and Natural History Society, etc. This is an illustrated work of one hundred and eighty-eight pages, published by Swan, Sonnenschen & Co., London. "The book deals with the Italian side of the Mont Blanc Range, a locality that deserves to be better known, than it appears to be, to visitors to the Alps. No attempt has been made to go deeply into scientific technicalities, but I have tried to explain as simply and clearly as possible the scientific bearings of some of the many facts which came under my notice during a holiday spent in that region." This book treats of the beauties of Nature in its various phases: the glorious mountains, the beautiful valleys, the rushing streams, and, in addition, the more animate part of Nature. Many interesting facts are brought out and dwelt upon in relation to the flora and fauna. The entomologist will find much of interest about his or her favorites, and we can heartily recommend Mr. Tutt's book. It breathes the spirit of Nature's poetry in prose, and such books do much to stimulate the study of all that is lovely in Nature.—H. S.

1. ANNALES AND MAGAZINE OF NATURAL HISTORY, sixth series, No. 89.—On the specimens of the genus *Cutiterebra* and its allies (family Oestridæ) in the collection of the British Museum, with descriptions of a new genus and three new species, E. E. Austen (with pl. xiii). Descriptions of new Coleoptera from New Zealand, Thos. Broun. On the Cis-

telidæ and other heteromerous species of Japan, G. Lewis. Note on the genus *Goniopleura* Westwood, with the description of a new species, C. J. Gahan. Description of a new species of butterfly from Taganac Island, northeast Borneo, H. G. Smith. ——No. 90.—Insects collected by Messrs. J. J. Quelch and F. McConnell on the summit of Mount Roraima, C. Waterhouse. Observations on the supposed semi-aquatic Phasmid, *Cotylosoma dipneusticum*, W.-M., C. Waterhouse.——No. 91.—Some new species of Odonata of the "Legion" *Lestes*, with notes, Robert McLachlan. Note on the Japanese Rhipidoceridæ: a new genus and species, G. Lewis. Descriptions of some new species of Heterocera from tropical America, Herbert Druce. On some Coccidæ obtained by Mr. C. A. Barber in the island of Antigua, W. I., T. D. A. Cockerell. New bees of the genus *Halictus* from New Mexico, U. S. A., T. D. A. Cockerell. On the Dascillidæ and malacoderm Coleoptera of Japan, G. Lewis. Description of a new species of butterfly of the genus *Amauris* obtained by Mr. Scott Elliot in East Central Africa, A. G. Butler.

2. THE ENTOMOLOGIST. London, May, 1895.—*Emmelesia tæniata* (with illustration), J. B. Hodgkinson. On the causes of variation and aberration in the imago stage of butterflies, with suggestions on the establishment of new species, Dr. M. Standfuss. Rhopalocera in the Guildford District, W. Grover. African Rhopalocera, Philip de la Garde. A catalogue of the Lepidoptera of Ireland, W. F. deV. Kane.——June—On the re-arrangement of the Fabrician genus *Colias*, and the proposal of a new genus of Pierinæ, J. Watson. Notes on *Onthophagus* Latr., with corrections of nomenclature and a description of a new genus, J. W. Shipp.

3. LE NATURALISTE. Paris, No. 196.—Description of new Coleoptera, M. Pic.——Nos. 198, 199.—Monographic essay on the Coleoptera of the genera *Pseudolucanus* and *Lucanus*, M. Planet.

4. BULLETIN DU MUSEUM D'HISTOIRE NATURELLE. Paris, 1895, No. 3.—The *Homalosoma*, Carabidæ of the tribe Feronini, J. Künckel d' Herculais. Note on Homoptera of the genus *Flatoides* Guérin, C. Brongniart. On the Arachnida collected in Lower California by M. Diguet, E. Simon. Description of new Coleopteron of a the family Tenebrionidæ (*Centorus bedeli* n. s.), P. Lesne. Origin and formation of the false stigmata in the Nepidæ (Hemiptera), M. J. Martin.

5. BULLETIN DE LA SOCIETE IMPERIALE DES NATURALISTES DE MOSCOU, 1893, No. 3.—Two new Aphids from south Russia, N. Cholodkovsky.

6. LE NATURALISTE CANADIEN, xxii, No. 5 (May, 1895).—Lepidoptera of Sherbrooke and neighborhood of that city, P. A. Bégin. The last descriptions of L'Abbe Provancher.

7. PROCEEDINGS OF THE CALIFORNIA ACADEMY OF SCIENCES (2), iv, part 2.—The Odonata of Baja California, P. P. Calvert. On the Diptera of Baja California, including some species from adjacent region, C. H. Tyler Townsend.

8. ZEITSCHRIFT FUR WISSENSCHAFTLICHE ZOOLOGIE. Leipzig, lix, 2, 1895.—On the amitotic nuclear division in the ovaries of Hemiptera, F. Preusse.——lix, 3.—Contributions to the knowledge of the developmental history of the scorpions, II, A. Brauer. Contributions to the knowledge of the lower Myriapoda, P. Schmidt.

9. PROCEEDINGS OF THE ENTOMOLOGICAL SOCIETY OF WASHINGTON, iii, No. 4.—Some important structural characters in the classification of the parasitic Hymenoptera, W. H. Ashmead. On the genus *Pelacinella* Westwood, . . . ibid. On the genus *Barycnemis* Foerster, ibid. *Lasiognatha*, a new and remarkable genus in the Ichneumonidæ, ibid. Discovery of the genus *Elasmosoma* Ruthe in America, ibid. A leaf beetle of the golden rod, F. H. Chittenden. On the nesting habits of the digger wasp, *Bembex cinerea*, D. W. Coquillett. Obituary notice of Dr. Geo. Marx, L. O. Howard. Notes on the geographical distribution within the United States of certain insects injuring cultivated crops, ibid. *Arrhenophagus* in America, ibid. Further notes on the Codling Moth, C. L. Marlatt. The American species of *Scolioneura* Knw., ibid. The hemipterous mouth, ibid. The hibernation of Nematids, and its bearing on the inquilinous species, ibid. Notes from California, results of Mr. Kaebele's second mission to Australia, C. V. Riley. On oviposition in the Cynipidæ, ibid. List of the entomological writings of George Marx. Notes on *Nomaretus*, . . . ibid. Notes on the distribution of some injurious insects, F. H. Webster.

10. COMPTES RENDUS HEBDOMADAIRES DES SEANCES DE L'ACADEMIE DES SCIENCES. Paris, t. cxx No. 18.—Comparative study of the odoriferous apparatus in the different groups of Hemiptera Heteroptera, Kunckel d'Herculais.——No. 19.—On the brown pigment in the elytra of *Curculio cupreus*, M. A. B. Griffiths.

11. THE INTERNATIONAL JOURNAL OF MICROSCOPY AND NATURAL SCIENCE. Bath, January, 1895.—Predacious [sic] and parasitic enemies of Aphides (including a study of hyper-parasites), pt. 2, H. C. A. Vine.

12. BULLETIN FROM THE LABORATORIES OF NATURAL HISTORY OF THE STATE UNIVERSITY OF IOWA, III, 3.—On the larvæ of three Coleoptera, H. F. Wickham. Nicaraguan Orthoptera, Lawrence Bruner.

13. BIOLOGIA CENTRALI-AMERICANA, Part cxxi, March, 1895.—Arachnida-Araneidea, pl. 17, O. P. Cambridge. Coleoptera, pp. 313-336, G. C. Champion. Hymenoptera, pp. 345-360, P. Cameron. Lepidoptera-Rhopalocera, pp. 385-400, pl. 85, F. D. Godman and O. Salvin. Lepidoptera-Heterocera, pp. 185-200, H. Druce. Rhynchota-Homoptera, pls. 4, 5, W. W. Fowler.

14. CORNELL UNIVERSITY AGRICULTURAL EXPERIMENT STATION (Ent. Div.), Bulletin No. 93, May, 1895.—The cigar-case bearer in western New York, M. V. Slingerland.

15. KNOWLEDGE, xviii, No. 116. London, June, 1895.—The colors of butterflies, C. F. Marshall.

16. ICONES ORNITHOPTERORUM, R. H. F. Rippon, pts. 6, 7. London (received June 4, 1895).

17. ZOOLOGISCHER ANZEIGER. Leipzig, No. 476.—Aphorisms on the biology, morphology, arrangement of genera and species of the Diplopoda, C. Verhoeff.——No. 477.—On the phylogeny of the Lepidoptera, A. S. Packard.——No. 478.—The bleeding of the Coccinellidæ, K. G. Lutz.

18. VERHANDLUNGEN DER K. K. ZOOL.-BOT. GESELLSCHAFT IN WIEN, xlv, 4 heft.—The ant and termite guests of Brazil, E. Wasmann, part 1, with an appendix by A. Forel.

19. MONOGRAPH of the Pseudophyllidæ, by C. Brunner von Wattenwyl, Wien, 1895; text in 8vo., pls. 4to.

20. BULLETIN OF THE MUSEUM OF COMPARATIVE ZOOLOGY, xxxvii, 1. —Spermatogenesis of *Calopterus femur-rubrum* and *Cicada tibicen*, E. V. Willcox.

21. AMERICAN NATURALIST. Philadelphia, June, 1895.—The mouth-parts of Lepidoptera, V. L. Kellogg.

22. TRANSACTIONS OF THE ENTOMOLOGICAL SOCIETY OF LONDON, 1895, part 2.—Contributions to a knowledge of the African phytophagous Coleoptera, pt. 1, M. Jacoby. On some new species of butterflies from tropical and extra tropical South Africa, R. Trimen. Notes on Indian ants, G. A. J. Rothney. On the heteromerous Coleoptera collected in Australia and Tasmania by James J. Walker, . . . with descriptions of new genera and species, G. C. Champion. Descriptions of new Heterocera from India, G. F. Hampson.

23. CANADIAN ENTOMOLOGIST, June, 1895.—The insect fauna of the Sudbury District, Ontario, J. D. Evans. Notes on collecting, and names new to the Canadian list, J. A. Moffatt. The Coleoptera of Canada, pt. x, H. F. Wickham. On two new species of *Platycerus*, T. L. Casey. Notes on Hymenoptera, W. H. Harrington. *Eudryas stæ. Johannis Redivivus*, A. R. Grote. Remarks on *Apateloides* suggested by an article by Mr. Schaus, H. G. Dyar. A few points in collecting Ichneumonidæ, G. C. Davis. Preliminary studies in *Siphonaptera*—v, C. F. Baker.——July, 1895.—List of Coleoptera collected at Massett, Queen Charlotte Islands, B. C., J. H. Keen. Entomological notes, J. A. Moffat. The insect fauna of the Sudbury District, Ontario, J. D. Evans. Spring collecting in Alberta, F. H. Wolley Dod. A new *Aegiale* (*Megathymus*), H. Skinner. The Coleoptera of Canada, xi, H. F. Wickham. Preliminary studies in *Siphonaptera*, vi, C. F. Baker. Descriptions of the larvæ of certain Tenthredinidæ, H. G. Dyar.

24. PROCEEDINGS OF THE U. S. NATIONAL MUSEUM, xvii.—On the Bothriothoracine insects of the United States, L. O. Howard. Notes on the geographical distribution of scale insects, T. D. A. Cockerell.

25. ENTOMOLOGISCHE NACHRICHTEN. Berlin, xx, H. 9.—Studies on *Osmiæ*, III, H. Friese.

26. PSYCHE. Cambridge, June, 1895.—Notes on the Winter insect fauna of Vigo County, Indiana, I, W. S. Blatchley. Eggs of the long-nosed ox-louse, *Hæmatopinus vitula* L., F. L. Harvey. On the validity of the Tachinid genus *Celatoria*, D. W. Coquillett. The larva of *Butalis basilaris* Zell., the relations of its setæ, H. G. Dyar. Two new western Coccidæ, T. D. A. Cockerell.

27. ANNALES DE LA SOCIETE ENTOMOLOGIQUE DE BELGIQUE, xxxix, pt. 5.—New ants from Oriental Imerina (Moramanga, etc.), A. Forel. Descriptions of the new species of phytophagous Coleoptera obtained by Mr. Andrews in India, M. Jacoby.

28. SCIENCE GOSSIP, June, 1895.—An aquatic Hymenopterous insect, F. Enock.

29. BULLETIN DE LA SOCIETE ZOOLOGIQUE DE FRANCE, xix.—Note on the Cicindelid Coleoptera of the genus *Phæoxantha* Chaudoir, E. Fleutiaux. Odonata of Cyprus, R. Martin.

30. MEMOIRES DE LA SOCIETE ZOOLOGIQUE DE FRANCE, vii, parts 2, 3.—Studies on the ants (seventh note). On anatomy of the petiole of *Myrmica rubra* L., C. Janet (part 4 of same). Observations and experiments on the means of protection of *Abraxas grossulariata* L., F. Plateau. Complete list of the Xylophilidæ described before 1894, M. Pic. Contributions to the Mediterranean myriapodological fauna (third note), H. W. Brölemann.

31. ZOOLOGISCHE JAHRBUCHER (Abtheilung f. Systematik, Geographie u. Biologie), viii, part 3.—Contributions to the knowledge of the North American ant fauna, C. Emery.

32. ENTOMOLOGISCHE ZEITUNG. HERAUSGEGEBEN VON DEM ENTOMOLOGISCHEN VEREIN ZU STETTIN. JAHRGANG 51 (1890).—Our present knowledge of the Ephemerinæ (cont.), H. Hagen. *Sphyrorrhina charon*, a new genus and species of Goliathidæ, O. Nickerl. New exotic Coleoptera, A. F. Nonfried. On the preparation of larvæ, H. Disque. Comparative studies on ant and termite guests, E. Wasmann. The entomological nomenclature, H. I. Kolbe. Contributions to the knowledge of the Butalidæ, Dr. Hofmann. On Libellulinæ of the collection of Dr. Heinrich Dohrn, F. Karsch.

33. STATE AGRICULTURAL COLLEGE (Agricultural Experiment Station), Bulletin No. 31.—A preliminary list of the Hemiptera of Colorado, C. P. Gillette and C. F. Baker.

34. BULLETIN OF THE UNITED STATES NATIONAL MUSEUM, No. 48.—A revision of the Deltoid moths, J. B. Smith. This paper is a continuation of the author's "Contribution toward a monograph of the Insects of the Lepidopterous family Noctuidæ of Boreal America," and will no doubt prove a valuable addition to the literature of Lepidoptera. It contains 126 pages and 12 plates. The work shows great care in regard to synonymy, descriptions and execution of plates.

35. PROCEEDINGS OF THE ACADEMY OF NATURAL SCIENCES OF PHILADELPHIA, 1895, part 1.—Some new bees of the genus *Perdita*, T. D. A. Cockerell.

36. MITTHEILUNGEN DES NATURWISSENSCHAFTLICHEN VEREINS FUR STEIERMARK, JAHRGANG, 1894.—The Diptera of Steiermark, pt. iii (Diptera Nemocera), P. G. Stobl.

37. REVUE SUISSE DE ZOOLOGIE ET ANNALES DU MUSEE D'HISTOIRE NATURELLE DE GENEVE, iii, 1.—Revision of the tribe of the Perisphærini, with plate 1, H. de Saussure et L. Zehnter.

38. ARCHIV FUR NATURGESCHICHTE. Berlin, 61 Jhg., Bd. i, H. 1.—Contributions to the comparative morphology of the abdomen of the Coccinellidæ, and on the muscling of the abdomen of *Coccinella*, ... C. Verhoeff.

39. TERMESZETRAJZI FUZETEK, xviii, 1, 2.—Species of the genus *Prionosomus* Fab., G. Horvath. Description of new species of Ichneumonidæ of the Hungarian fauna, S. Brauns.

40. PROCEEDINGS OF THE LINNEAN SOCIETY OF NEW SOUTH WALES (2), ix, pts. 2–3.—Wood moths, with some account of the life-histories, . . . W. W. Froggatt. Part 3.—Studies on Australian entomology, No. 7, new genera and species of Carabidæ, . . . T. G. Sloane.

41. DELAWARE COLLEGE AGRICULTURAL EXPERIMENT STATION, Bulletin No. 25.—The San José scale insect in Delaware, M. H. Beckwith.

42. NEW YORK STATE MUSEUM, Bulletin II, No. 13.—The San José scale, *Aspidiotus perniciosus* and some other destructive scale insects of the State of New York, J. A. Lintner.

43. JOURNAL OF THE NEW YORK ENTOMOLOGICAL SOCIETY, iii, No. 2.—Notes and descriptions of Tachinidæ, D. W. Coquillett. A variety of the larvæ of *Sphinx plebeius*, W. Beutenmüller. Notes on two *Callimorphas*, H. G. Dyar. On the food-habits of certain dung and carrion beetles, C. W. Clark. Notes on a collecting tour in Connecticut, R. L. Ditmars. Two California Phalangids, N. Banks. Notes on Drepanid larvæ, H. G. Dyar. On the larvæ of the Hepialidæ, A. S. Packard. Preliminary handbook of the Coleoptera of northeastern America, C. W. Leng and W. Beutenmüller. A list of the spiders of Long Island, . . . N. Banks.

44. PSYCHE, July, 1895.—Life-history of *Clisiocampa pluvialis* Dyar, H. G. Dyar. On the Tachinid genus *Acroglossa* Williston, D. W. Coquillett. Woolly leaf-gall made by a species of *Callirhytis* on scrub oak, C. H. Townsend. Local butterfly notes, S. W. Dayton. New North American Coccidæ, T. D. A. Cockerell. New North American bees, ibid.

45. THE ENTOMOLOGISTS' MONTHLY MAGAZINE, July, 1895.—List of the Coleoptera common to Britain and North America (concl.), G. C. Champion.

46. ANNALES SOCIETE ENTOMOLOGIQUE DE BELGIQUE. Tome xxxix, vi.—Brenthides, by Dr. A. Senna (Hovasius alluadi N. G. nov. sp.). List of the Coleoptera in the collection of H. E. Andrews, Esq., from India and Burmah, with descriptions of new species and notes, H. S. Gorham.

47. THE ENTOMOLOGIST'S RECORD AND JOURNAL OF VARIATION, vi, No. 11.—*Eudryas stæ Johannis*, A. Radcliffe Grote.

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The number after each author's name in this index refers to the journal, as numbered in the preceding literature, in which that author's paper is published; * denotes that the paper in question contains descriptions of new North American forms.

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Doings of Societies.

The Entomological Section of the Chicago Academy of Sciences held its regular monthly meeting at the house of W. E. Longley, 115 South Ridgeland Avenue, Oak Park, Ill., Friday evening, June 21st. A good attendance present. Mr. A. J. Snyder, the recorder of the Section, with an assistant, left June 14th for a ten-weeks' collecting tour in the West. The members present report the collecting this season unusually good.

W. E. LONGLEY, *Chairman.*

The Entomological Section

ACADEMY OF NATURAL SCIENCES, PHILADELPHIA.

PROCEEDINGS OF MEETINGS.

The following papers were read and accepted by the Committee for publication in ENTOMOLOGICAL NEWS:

NEW CALIFORNIAN COLEOPTERA.

By F. E. BLAISDELL, M. D.

Coniontis sanfordii n. sp.—Length 12.5 mm.; width 6.0 mm.—Oblong, moderately elongate with sides feebly arcuate, rather strongly convex, very highly polished, smooth; vestiture minute and fulvous in color.

Head rather coarsely and densely punctured, sides as prominent as posterior canthus of eyes; antennæ slender. *Prothorax* one-half wider than long, apex nearly two-thirds as wide as base, angles rather broadly rounded; base transverse and very feebly bisinuate laterally; angles feebly rounded and not prominent; sides strongly arcuate anteriorly, feebly so posteriorly; disc very finely punctured, punctures becoming denser at sides, lateral edges strongly beaded. *Elytra* at least twice as long as prothorax; punctures fine, but larger than those of pronotum and rather sparsely distributed; sides feebly arcuate. *Abdomen* strongly convex, polished, feebly and sparsely punctate.

California (Calaveras County, elevation 2300 feet). A series of three specimens clearly demonstrates a well-marked species.

From *elongata* it differs in its more robust form, shorter and broader prothorax.

The type has been carefully compared with large series of each of the following species: *elliptica viatica*, *eschscholtzi*, (and *affinis*).

In Casey's synopsis of this genus ("Coleopterological Notices," ii, p. 372), the present species may precede *viatica*, with the following brief definition:

Form more robust, sides of head as prominent as posterior canthus of eye, very highly polished, prothorax transverse and very finely punctured.

Occurs in ledges and beneath the débris under trees. When living it is strongly primrose. I dedicate the species to Mr. O. N. Sanford, of Coronado, San Diego County, in recognition of the fact that he has done much to make known the insect fauna of Southern California.

Eleodes armata impotens n. subsp.—Length 19.0 mm.; width 7.0 mm. Form rather elongate and strongly convex, black throughout and somewhat opaque. *Head* rather finely, sparsely, submuricately punctured; antennæ slender, subclavate, shorter than head and prothorax, joints fifth, sixth and seventh subequal in length and width, outer joints rather suddenly widened, transversely elliptical, and twice the width of sixth. *Prothorax* moderately convex, subquadrate, scarcely wider than long, apex truncate, equal in width to base,—the latter feebly arcuate; apical angles dentiform, small, acute and strongly divergent; basal angles almost rectangular, not prominent; sides moderately arcuate in anterior two-thirds, thence feebly convergent to base; disc convex, smooth, very finely and sparsely punctate. *Elytra* scarcely three times as long as prothorax, less than one-third wider than the latter, strongly convex; sides evenly arcuate, humeri not prominent; base equal to contiguous prothorax; apex narrowly rounded; disc rather suddenly declivous behind,

punctate; punctures moderately fine, arranged in rather closely placed, feebly impressed series, intervals with similar, sparsely, irregularly placed punctures, which are not asperate at sides; anterior tibial spurs similar, rather long and equal; middle and posterior spurs shorter. *Legs* slender all the femora armed, the anterior with an acute tooth, the middle with an obtuse tooth which is less prominent, the posterior with a smaller and very obtuse process.

Female is larger and more convex, head rather large, thorax strongly convex, but elytra less so; femoral teeth as in the male.

California (Merced County).

Described from two specimens. Subsequently a series of eight specimens were received in which the femoral spurs uniformly agreed with those of the type specimens, the elytral punctuation being much more decided, and the general form more elongate, approaching that of *gigantea*.

Eleodes confinis s. sp.—Length 22.0 mm.; width 9.0 mm. Rather robust, very convex and subcylindrical, feebly shining and smooth. *Head* large, as long as wide, finely and evenly punctured; antennæ robust, reaching to posterior third of the prothorax, third joint about two and one-half times as long as wide, not longer than the next two, joints four to eleven, inclusive, subequal in length; seventh as long as wide; eighth, ninth, tenth and eleventh wider than long. *Prothorax* scarcely a third wider than long, apex broadly and feebly emarginate, subequal to base, which is feebly arcuate; apical angles dentiform, not divergent, feebly acute; sides quite strongly arcuate in anterior three-fifths, widest just in front of middle, posteriorly straight, convergent *and not in the least constricted* in front of basal angles, the latter obtuse, not rounded nor prominent; disc convex, very finely, evenly punctate. *Elytra* about two and two-third times as long as prothorax, and at base equal to the contiguous base of the latter, widest at middle; sides evenly arcuate to apex, which is obtuse and emarginate from the depression of elytral suture in the declivous portion; humeri obtuse and slightly prominent; disc smooth, strongly convex, very finely and feebly punctured, punctures arranged in closely placed series, intervals with a series of very fine, sparsely placed punctures, with others that are irregularly scattered and which become denser along suture, and rather more confused at apex and outer intervals; scutellum rather large and glabrous. *Abdomen* smooth, shining, finely and sparsely punctate. *Legs* moderately slender, anterior femora armed with a small acute tooth; spurs similar and subequal.

California (Mokelumne Hill, Calaveras County).

The present form should be placed with those species having the thorax with sides gradually narrowing to base, and should precede *hispilabris* in our lists.

Helops stenotrichoides n. sp.—♀. Length 11.5 mm., width 4.0 mm. Elongate oval, piceous, head, antennæ and legs rufo-piceous. *Head* transverse, finely and densely punctured; epistoma depressed, and truncate at apex, angles narrowly rounded; eyes convex, round (viewed from above), prominent; antennæ slender, outer joints very slightly compressed, reaching to middle third of elytra, feebly incrassate, third joint slightly shorter than the next two, fifth just visibly shorter than the fourth, eleventh ellipsoidal and just perceptably longer than the eighth. *Prothorax* quadrate: apex strongly arcuate and equal to the base, apical angles feebly rounded; base truncate, angles subrectangular; sides feebly arcuate anteriorly, nearly straight and feebly convergent posteriorly; disc evenly, moderately, transversely convex, rather finely, very densely punctate throughout, at sides the interspaces raised into very fine, wavy longitudinal rugæ. *Elytra* twice as long as wide, and nearly two and one-half times longer than the prothorax; base slightly wider than the contiguous base of the latter; humeri slightly prominent and narrowly rounded; sides nearly parallel anteriorly, rather strongly arcuate in posterior third to apex; disc moderately convex, widest at junction of middle with posterior third, finely striate, intervals with a few scattered, very fine transverse rugæ, each interval with a single series of irregularly spaced, small tubercles, which become obsolete towards the suture. *Abdomen* very finely and moderately sparsely punctate, clothed with very short, sparse, flavate hairs, which are rather long, and flying on the last ventral segment; metasternum between coxa and groove equal to the first ventral segment in length. *Legs* moderately slender, tibiæ pubescent.

Male.—Length 8.0 mm.; width 2.5 mm. Slender, subparallel, antennæ reaching to middle of the elytra, third joint equal to the next two, others more elongate, eleventh about twice as long as wide. *Elytral* intervals convex and narrow.

California (Mokelumne Hill, Calaveras County.

Several specimens taken in November and December from beneath the bark on an old Buckeye (*Æsculus californica*) stump. In the present species the prothorax is widest at the junction of middle and anterior thirds, and should be placed with those apterous species which have the antennæ longer than the head and prothorax, prothorax quadrate, with apex rounded.

At one time the ravages of the *Dermestes vulpinus* were so great in the skin warehouses of London, that a reward of £20,000 was offered for an available remedy.—*Baird's Cyclop. Nat. Sci.*, London, 1858.

Ovalle states that, in the pampas of Chili, bread is made of Locusts and of Mosquitos.—*Cowan's Curious Facts.*

ODONATA—A NOTE AND A DESCRIPTION.

By Prof. D. S. KELLICOTT, Columbus, Ohio.

In his paper,* the Odonata of New York State, Mr. Calvert says that "*Diplax obtrusa* probably lives in New York." I am able to confirm the truth of this inference as I have taken it several years in succession in Hastings, Oswego County; in August and September I have found it quite as abundant as *D. rubicundula.*

In the "Catalogue of the Odonata of Ohio,"† I gave an account of the habits, localities in which it had been taken, and a description of the female of a species of *Enallagma* which I had mistaken for *Enallagma divagans.* All that is said in that article refers to the species described below and not to *divagans.* I have obtained examples of the latter and compared the two. They are clearly distinct and I hasten to correct the grave error.

Enallagma geminata n. sp.—Length of abdomen, ♂ 20 mm., ♀ 19 mm.; hind wing ♁ 15 mm., ♀ 15 mm. (♁) Head: labrum and brows blue, clypeus and vertex black, post-ocular spots cuneiform, not connected, blue; prothorax black edged with blue, scarcely bilobed. Thorax black above with a blue stripe each side (this is sometimes divided as in *N. posita*); sides blue with a black line on the suture. Wings hyaline, pterostigma black; legs black and pale, tarsi black. Abdomen brassy black, blue as follows: 1, an apical ring and a lateral spot connected with it; 2, a basal ring interrupted dorsally, this ring is sometimes very wide and the interruption also, there is a lateral stripe connected with the ring; 3-6, basal interrupted rings; 8–9, wholly, abdomen beneath pale blue with brown shades apically; the abdominal appendages are black, agreeing very closely in form with those of *divagans*; they are relatively stouter, and from above the outline is more oblong; there is a sharp tooth on the lower edge of the inner face, the upcurved apex of the lower branch (referring to the type *exsulans*) is a little stouter and more obtuse than in *divagans*, while the upper one is a little less prominent; the inferior appendages are little longer than the superior with the acute apex curved upward and inwards.

♀.—Very similar to the male. The blue of the front of the head of the male is pale blue or brownish; the post-ocular spots and humeral stripes a little paler; the abdomen is black above, the sides pale blue, sternal membrane black; there is an apical ring on 1; 3-7 have a basal pale blue ring with a wide interruption dorsally; on 8 there is a large blue spot on either side, these are separated dorsally by a black line of varying width; the appendages are black, the valves pale or faded brown.

* "Journal of the Entomological Society of New York," vol. iii, p. 48.

† "Journal of the Cincinnati Society of Natural History," January, 1895, page 205.

I have taken it as follows: Licking Reservoir, Ohio, May 25, July 11 and 25; Sandusky, Ohio, June 26; Delaware, Ohio, May 30; Springfield, Ohio, July 6; Sugar Grove, Ohio, September 4; Corunna, Mich., July 25. At Licking Reservoir it was not uncommon at the dates given for July.

The variable width of the basal ring on 2 is confusing; in consequence the dorsum of 2 in some examples is completely black, in others the black is restricted to a well marked apical spot, hence different individuals fall into different groups of the genus. Again the appendages of the male, except the inner tooth, which was at first overlooked, are so nearly like those of *divagans* that a mere description scarcely separates them. On the other hand both sexes are smaller than *divagans*.

OBITUARY.

MOUNT CARROLL, ILL., July 30.—Dr. Henry Shimer died on Sunday, July 28th. He was formerly State Entomologist, and had the honor of naming all the grasses and cereals at the World's Columbian Exposition, and was also engaged in work for the Smithsonian Institution at Washington. He was worth $100,000.

We were surprised and pained to see the above notice in one of our Philadelphia newspapers. Only recently we had a very pleasant visit from Dr. Shimer, and he always came to the Academy on his periodical visits to this State.

ENTOMOLOGICAL NEWS for June, was mailed May 30, 1895.